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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/701,845	11/05/2003	Juan Bautista Mario Lucio Magri	3143/1	7788
7590	05/19/2004		EXAMINER	
Adams Evans P.A. 2180 Two Wachovia Center Charlotte, NC 28282			KOSSON, ROSANNE	
			ART UNIT	PAPER NUMBER
			1651	
DATE MAILED: 05/19/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/701,845	<b>Applicant(s)</b> LUCIO MAGRI, JUAN BAUTISTA MARIO
	<b>Examiner</b> Rosanne Kosson	<b>Art Unit</b> 1651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 05 November 2003.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-4 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_ is/are allowed.  
 6) Claim(s) \_\_\_\_ is/are rejected.  
 7) Claim(s) 1-4 is/are objected to.  
 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date, ____ .   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: ____ .                                   |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors. Amendment of the claims so that they are written in standard English and comply with U.S. patent practice is required. In particular, claim 1, step c), is not clear. Step c) 1) recites "previous dissolving in 100 liters of water." It is not clear what is dissolved in water. Also, as step c) follows steps a) and b), it is not clear where in the sequence of steps the previous dissolving occurs. Claim 1 additionally recites a "general use culture medium." "General use" is vague and indefinite, and the intended meaning cannot be determined. For example, what one person would consider a general use culture medium, another person would not. Also, a general use culture medium may be considered to be one that supports the growth of a wide range of organisms or that may be used under a wide range of growth conditions. The specification does not indicate the range of microorganisms with which the culture medium can be used or the range of the

conditions under which the culture medium can be used. Therefore, the specification does not support the recitation of this term in the claim, and clarification is required.

Regarding claims 1 and 3, the phrase "preferably soybeans, alfalfa and beans" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d). It is unclear whether or not the process of claim 1 and the obtained product-by-process of claim 3 may be used with all leguminous plants, or with soybeans, alfalfa and beans.

Clarification is required.

Claims 2 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 2 recites "5 to 20% peat" and "10% of the peat in step 1." Claim 4 recites "5 to 20% thereof for peat." It is unclear whether the percentages refer to percent by weight or percent by volume. Clarification is required.

Further, claim 3 is directed to a concentrated inoculating composition obtained by the method of step 1. Claim 3 recites, however, that the inoculating composition comprises lactose saccharides. Lactose and maltose are different sugars, and claim 1 does not recite lactose saccharides. Clarification or correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scott et al. (U.S. 3,168,796), Kuykendall et al. (Applied and Environmental Microbiology 22(4):511-519, 1976) and Bergey's Manual (Bergey's Manual of Determinative Microbiology, 8<sup>th</sup> Ed., R.E. Buchanan & N.E. Gibbons, eds., pp. 262-264, The Williams & Wilkins Co., Baltimore, 1974) in view of Guri et al. (U.S. 5,750,402) and Jung et al. (U.S. 4,755,468). Scott discloses a general use culture medium comprising grown *Rhizobium japonicum* and disaccharides, as well as a method for making for this medium, and notes that the *Rhizobium* may be grown using standard procedures well known in the art (see column 5, lines 13-36, and column 5, line 73, to column 6, line 15). Kuykendall also discloses a general use culture medium comprising grown *Rhizobium japonicum* and sterilized sugars, including maltose, as well as a method for making for this medium (see p. 512, Materials and Methods, and p. 516, 2d paragraph). Kuykendall notes that the *Rhizobium* grew equally well on 10 different carbon sources, including five different sugars. Indeed, all species of Rhizobia are known to utilize a wide range of carbohydrates (see Bergey's Manual of Determinative Bacteriology, 8<sup>th</sup> Ed., pp. 262-264). Guri discloses that potassium sorbate is a known microbicide that can be used with plant growth media (see column 3, lines 53-59, and column 4, lines 45-65) and cites, i.a., the Merck Index, which lists potassium sorbate as a mold and yeast inhibitor. Jung discloses a plant growth medium comprising grown *Rhizobium japonicum* and that fungicides may be added to the medium without altering the bacterial cells (see column 6, lines 7-13, and column 7, lines 23-25).

Thus, one of ordinary skill in the art would be motivated to modify the medium of Scott or Kuykendall to include the fungicide potassium sorbate because, as noted in Guri, plant culture media are subject to contamination by unwanted organisms. Adding an antimicrobial agent helps maintain sterile conditions to allow for proper growth of the plant to be inoculated into the medium (see column 1, Field of the Invention). The skilled artisan would further note from Jung that a fungicide may be used in a plant growth medium containing *Rhizobium japonicum* without harming the Rhizobium.

Claims 1-4 rejected under 35 U.S.C. 103(a) as being unpatentable over Scott et al. (U.S. 3,168,796), Kuykendall et al. (Applied and Environmental Microbiology 22(4):511-519, 1976) and Bergey's Manual (Bergey's Manual of Determinative Microbiology, 8<sup>th</sup> Ed., R.E. Buchanan & N.E. Gibbons, eds., pp. 262-264, The Williams & Wilkins Co., Baltimore, 1974) in view of Guri et al. (U.S. 5,750,402) and Jung et al. (U.S. 4,755,468) as applied to claims 1 and 3 above, and further in view of Kosanke et al. (U.S. 5,695,541) or Gleddie et al. (U.S. 5,586,411). As discussed above, claims 1 and 3 are considered obvious over Scott/Kuykendall/Bergey's Manual /Guri and Jung. None of the cited references discloses the use of peat in a Rhizobium-containing medium, as recited in claims 2 and 4. Kosanke, however, discloses that it is known in the relevant art to mix living rhizobial cultures with peat as a carrier when the rhizobial cultures are to be used as an inoculant for leguminous plants. Peat supplies moisture to the rhizobia to maintain them in a living state (see column 1, lines 24-33). Thus, the skilled artisan would be motivated to add peat to a Rhizobium-containing growth medium, as taught by Kosanke, in order to maintain the viability of the rhizobium and improve the properties of

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the growth medium. Gleddie discloses that, although peat is the carrier of choice for the rhizobial inoculant industry, peat that has been sterilized prior to mixing with rhizobial cells provides the highest quality, most stable and most efficacious rhizobial inoculant. Using peat that has not been presterilized can introduce microbial contaminants that adversely affect the properties of the inoculant (see column 1, line 56, to column 2, line 11). As a result, the skilled artisan would be motivated to use presterilized peat in preparing a Rhizobium-containing growth medium, as taught by Gleddie, in order to produce a high-quality medium free of contaminants. Therefore, a holding of obviousness is required.

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rosanne Kosson whose telephone number is 571-272-2923. The examiner can normally be reached on Monday-Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Rosanne Kosson  
Examiner  
Art Unit 1651

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FRANCISCO PRATS  
PRIMARY EXAMINER